

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A composition ~~comprising~~ consisting essentially of colloidal Fe₃O₄ particles coated with a biotin-binding protein.

Claim 2 (currently amended): ~~A composition as claimed in claim 1~~ The composition of claim 1, wherein the biotin-binding protein is avidin or streptavidin.

Claim 3 (currently amended): ~~A composition as claimed in claim 2~~ The composition of claim 2, wherein the biotin-binding protein is streptavidin.

Claim 4 (withdrawn): A method for synthesis of a composition as claimed in claim 3, said method comprising the steps of incubating colloidal Fe₃O₄ particles with a biotin-binding protein.

Claim 5 (withdrawn): A method as claimed in claim 4, further comprising the steps of:

- a) forming colloidal Fe_3O_4 particles by mixing aqueous FeCl_2 with aqueous FeCl_3 and adding aliquots of the mixture to an alkaline solution;
- b) adding a biotin-binding protein.

Claim 6 (withdrawn): A method as claimed in claim 5, wherein the molar ratio of FeCl_2 :
 FeCl_3 is between 1:1.5 and 1:2.

Claim 7 (withdrawn): A method as claimed in claim 6, wherein the molar ratio of FeCl_2 :
 FeCl_3 is 1:1.5.

Claim 8 (withdrawn): A method as claimed in claim 7, wherein the aqueous FeCl_2 is
 $\text{FeCl}_2 \cdot 4\text{H}_2\text{O}$.

Claim 9 (withdrawn): A method as claimed in claim 8, wherein the aqueous FeCl_3 is
 $\text{FeCl}_3 \cdot 6\text{H}_2\text{O}$.

Claim 10 (withdrawn): A method as claimed in claim 9, wherein said forming step
further includes adding an ammonia solution to the mixture of FeCl_2 and FeCl_3 .

Claim 11 (withdrawn): A method as claimed in claim 10, wherein the biotin-binding
protein is added in excess.

Claim 12 (withdrawn): A method as claimed in claim 11, wherein the biotin-binding protein is streptavidin.

Claim 13 (withdrawn): A method of immobilising a biotinylated compound comprising incubating said biotinylated compound in solution in the presence of a composition as claimed in claim 1.

Claim 14 (withdrawn): A method as claimed in claim 13, wherein the biotinylated compound is selected from the group consisting of a nucleic acid molecule, a protein, and a peptide.

Claim 15 (withdrawn): A method as claimed in claim 14, further comprising the step of separating the biotinylated compound and the composition from said solution.

Claim 16 (withdrawn): A method as claimed in claim 15, wherein said separating step further comprises the step of magnetically attracting the biotinylated compound and the composition to a surface.